



Software Version Description for

Translation Maps Segment Version 1.1

for ECPN Version 2.2

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Inter-National Research Institute, Inc.
12350 Jefferson Avenue, Suite 400
Newport News, Virginia 23602

SVD for Translation Maps 1.1 for ECPN 2.2

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Software Version Description for Translation Maps

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1.0 Scope

This Software Version Description (SVD) applies to the Electronic Commerce Processing Node (ECPN) Translation Maps Segment. This document follows the standards set forth in *Military Standard Software Development and Documentation* (MIL-STD-498) and in the Data Item Description (DID) for a Software Version Description (DI-IPSC-81442), as tailored by Inter-National Research Institute (INRI).

1.1 Identification

This document applies to Version 1.1 of the ECPN Translation Maps Segment, which is a segment to be used with ECPN software, Version 2.2.

1.2 System Overview

The purpose of the ECPN Translation Maps Segment is to supply the ECPN Translator with the maps and associated files necessary to convert data to and from X12s and user-defined files (UDFs). This section covers the following items:

- [Systems supported](#) by the Translation Maps Segment
- [Transaction sets supported](#) by the Translation Maps Segment

1.2.1 Systems Supported by the Translation Maps Segment

The ECPN Translation Maps Segment provides maps for several systems.

IMPORTANT: Current copies of all maps are provided; however, only those maps that have completed end-to-end testing and are certified by the Defense Information Systems Agency (DISA) should be used operationally.

To view a list of the systems for which translation is currently available, as well as the transaction sets supported for incoming and outgoing translation, consult [Table 1-1](#).

The third column from the right — 824 — indicates whether or not ECPN generates an 824 acknowledgement after UDF→X12 translation, and the last column on the right — 997 — indicates whether or not ECPN generates a 997 acknowledgement after X12→UDF translation. These 824 and 997 acknowledgements inform the originating site of the success or failure of the message's translation.

Table 1-1 Systems Supported by Translation Maps Segment

System	Transaction	X12 version release	UDF→X12	824	X12→UDF	997
ADS	810	3070			X	No [‡]
	820*	3050	X*	Yes*		
	824*	3050	X*	Yes*		
AFCOS	821	3070			X	No [‡]
	824*	3050	X*	Yes*		
APADE	824	3050	X	Yes	X	Yes
	836	3050	X	Yes	X	Yes
	840	3050	X	Yes	X	Yes
	843	3050	X	Yes	X	Yes
	850	3050	X	Yes	X	Yes
	855	3050	X	Yes	X	Yes
	860	3050	X	Yes	X	Yes
	865	3050	X	Yes	X	Yes

*Not currently implemented in the Translation Maps Segment Version 1.1, but will be included in a future version.

[†]For every SAACONS 843 that is translated, ECPN transmits a 3070 838.

[‡]This system is a recipient of messages from the Defense Travel System (DTS). Because the X12→UDF translation is only the second half of the DTS UDF→ECPN X12→Destination UDF translation process, no 997 acknowledgements are generated.

Table 1-1 Systems Supported by Translation Maps Segment (Continued)

System	Transaction	X12 version release	UDF→X12	824	X12→UDF	997
DBMS	821	3070			X	No [‡]
	824	3050	X	Yes*		
DIFMS	821	3070			X	No [‡]
	824	3050	X	Yes		
DTSCUI	810	3070	X	Yes		
	820	3050			X	No*
	821	3070	X	Yes		
	824	3050			X	No*
DWAS	821	3070			X	No [‡]
	824	3050	X	Yes		
EDA	NA	NA	NA	NA	NA	NA
GAFS	810	3070			X	No [‡]
	821	3070			X	No [‡]
IAPS	810	3070			X	Yes*
IFAS	821	3070			X	No [‡]
	824	3050	X	Yes		
IGS	521	4010			X	Yes
IPC	820 – Travel (T)	3040	X	Yes		
	820 – Partner (P)	3050	X	Yes		
	820 – Bank (X)	3050	X	Yes		
	820 – CBA	3050	X	Yes		
	820 – DTS	3050	X	Yes		
	824 – DTS	3050	X	Yes		

*Not currently implemented in the Translation Maps Segment Version 1.1, but will be included in a future version.

[†]For every SAACONS 843 that is translated, ECPN transmits a 3070 838.

[‡]This system is a recipient of messages from the Defense Travel System (DTS). Because the X12→UDF translation is only the second half of the DTS UDF→ECPN X12→Destination UDF translation process, no 997 acknowledgements are generated.

Table 1-1 Systems Supported by Translation Maps Segment (Continued)

System	Transaction	X12 version release	UDF→X12	824	X12→UDF	997
ITIMP	824	3050	X	Yes	X	Yes
	836	3050	X	Yes	X	Yes
	840	3050	X	Yes	X	Yes
	843	3050	X	Yes	X	Yes
	850	3050	X	Yes	X	Yes
	855	3050	X	Yes	X	Yes
	860	3050	X	Yes	X	Yes
	865	3050	X	Yes	X	Yes
LEGACY	821	3070			X	No [‡]
PADDS (April Specifica- tion)	824	3050	X	Yes	X	Yes
	836	3050	X	Yes	X	Yes
	840	3050	X	Yes	X	Yes
	843	3050	X	Yes	X	Yes
	850	3050	X	Yes	X	Yes
	855	3050	X	Yes	X	Yes
	860	3050	X	Yes	X	Yes
	865	3050	X	Yes	X	Yes
PADDS (August Specifica- tion)	824	3050	X	Yes	X	Yes
	836	3050	X	Yes	X	Yes
	840	3050	X	Yes	X	Yes
	843	3050	X	Yes	X	Yes
	850	3050	X	Yes	X	Yes
	855	3050	X	Yes	X	Yes
	860	3050	X	Yes	X	Yes
	865	3050	X	Yes	X	Yes
SAACONS	824	3010	X	Yes	X	Yes
	836	3010	X	Yes		
	840	3010	X	Yes		
	843 [†]	3010			X	Yes
	850	3010	X	Yes		
	860	3010	X	Yes		

*Not currently implemented in the Translation Maps Segment Version 1.1, but will be included in a future version.

[†]For every SAACONS 843 that is translated, ECPN transmits a 3070 838.

[‡]This system is a recipient of messages from the Defense Travel System (DTS). Because the X12→UDF translation is only the second half of the DTS UDF→ECPN X12→Destination UDF translation process, no 997 acknowledgements are generated.

Table 1-1 Systems Supported by Translation Maps Segment (Continued)

System	Transaction	X12 version release	UDF→X12	824	X12→UDF	997
SABRS	821	3070			X	No [‡]
	824	3050	X	Yes		
SIFS	821	3070			X	No [‡]
	824	3050	X	Yes		
SOMARDS	821	3070			X	No [‡]
	824*	3050	X*	Yes*		
SPS	824	3050	X	Yes	X	Yes
	836	3050	X	Yes	X	Yes
	840	3050	X	Yes	X	Yes
	843	3050	X	Yes	X	Yes
	850	3050	X	Yes	X	Yes
	855	3050	X	Yes	X	Yes
	860	3050	X	Yes	X	Yes
	865	3050	X	Yes	X	Yes
SPS-EDA	NA	NA	NA	NA	NA	NA
SRD1	810	3070			X	No [‡]
	820*	3050	X*	Yes*		
	824*	3050	X*	Yes*		
STANFINS	821	3070			X	No [‡]
	824	3050	X	Yes*		
STARS	821	3070			X	No [‡]
	824	3050	X	Yes		

*Not currently implemented in the Translation Maps Segment Version 1.1, but will be included in a future version.

[†]For every SAACONS 843 that is translated, ECPN transmits a 3070 838.

[‡]This system is a recipient of messages from the Defense Travel System (DTS). Because the X12→UDF translation is only the second half of the DTS UDF→ECPN X12→Destination UDF translation process, no 997 acknowledgements are generated.

1.2.2 Transaction Sets Supported by the Translation Maps Segment

The Translation Maps Segment supports translation for several transaction sets. [Table 1-2](#) lists the transaction sets by identifier and title.

Table 1-2 Transaction Sets

Identifier	Title
810	Invoice
820	Payment Order/Remittance Advice
821	Financial Information Reporting
824*	Application Advice
836	Procurement Notice
838	Trading Partner Profile
840	Request for Quotation
843	Response to Request for Quotation
850	Purchase Order
855	Purchase Order Acknowledgement
860	Purchase Order Change Request – Buyer Initiated
865	Purchase Order Change Acknowledgement/ Request – Seller Initiated
*Also used by ECPN for 824 acknowledgements of UDF→X12 translation.	

1.3 Document Overview

The purpose of this document is to identify and describe the Translation Maps Segment, Version 1.1. This document contains the following sections:

Scope

States the purpose of the Translation Maps Segment, describes its role within ECPN, and states the purpose of this SVD. ([Section 1.0](#))

Referenced Documents

Lists the documents applicable to this SVD. ([Section 2.0](#))

Version Description

Provides descriptions of the directories installed by the Translation Maps Segment and the software changes made to the Translation Maps Segment. ([Section 3.0](#))

Notes

Defines the acronyms and abbreviations used in this SVD. ([Section 4.0](#))

2.0 Referenced Documents

The following documents are referenced in this SVD. In the event of a later version of a referenced document being issued, the later version shall supersede the referenced version.

- *Data Item Description – Software Version Description* (DI-IPSC-81442), December 1994.
- *Draft Software User's Guide for Electronic Commerce Processing Node, Version 2.2*, INRI, May 1999.
- *Draft System Administrator's Guide for Electronic Commerce Processing Node, Version 2.2*, INRI, May 1999.
- *Military Standard – Software Development and Documentation* (MIL-STD-498), December 1994.

3.0 Version Description

The following subsections describe Version 1.1 of the Translation Maps Segment for ECPN Version 2.2.

3.1 Inventory of Materials Released

The following physical media and associated documentation make up Version 1.1 of the Translation Maps Segment for ECPN Version 2.2:

- One tape: Translation Maps Segment Version 1.1 for ECPN Version 2.2
- *Software Version Description for Translation Maps Segment Version 1.1 for ECPN Version 2.2*, May 1999

3.2 Changes Installed

The following subsections describe:

- [Directories installed](#) by the Translation Maps Segment
- [Software changes](#) to the Translation Maps Segment

3.2.1 Directories Installed

For a list of the directories that are put in place when Version 1.1 of the Translation Maps Segment is installed, see [Table 3-1](#). Instructions for configuring channels for translation are provided in Section 4.1.4 of the *Draft Software User's Guide for Electronic Commerce Processing Node, Version 2.2*.

Table 3-1 Translation Maps Segment Directories

This directory	Contains	Appears in the GUI as
/h/data/global/EC/ Messages/Maps	Map families (that is, individual collections of map files) for each system for which translation is available	Options in the MESSAGE TYPE list box (other than X12) in the TRANSLATION tab of the edit channel window
	Look-up tables for each system for which translation is available	LOOK-UP TABLES list box in the TRANSLATION tab of the edit channel window
/h/data/local/EC/ html/MapDocs	Mapping specifications and implementation conventions for each system for which translation is available	View Documents button in the TRANSLATION tab of the edit channel window
/h/data/global/EC/ Messages/MessageDesc	Descriptions of map files, transaction sets supported, and any unique addressing information for each system for which translation is available	Information in the DESCRIPTION box in the TRANSLATION tab of the edit channel window

3.2.2 Software Changes

The Translation Maps Segment, Version 1.1, includes the following software changes:

1. *Problem:* PADDS 840, 850, 860, and 997 messages that were sent to VANs and vendors contained 00307 in the ISA12 field.

Solution: Modified the PADDS 840, 850, 860, and 997 maps to properly populate the ISA12 field with 00401.

2. *Problem:* 843 messages addressed to PADDS failed translation because the ISA12 element referenced 00401. Currently, the PADDS 843 X12 to UDF map allows only for 00307 in the ISA12 field.

Solution: Modified the PADDS 843 map to allow for ISA12 values between 00401 and 00305.

3. *Problem:* PADDS UDF to X12 translation for 840 messages improperly maps REC49/07 and REC49/08 to 1/MEA05/049 and 1/MEA06/049, respectively, for implied decimal values that exceed a field length of 20, not including the sign or decimal point.

Solution: Modified the MEA segment in the PADDS 840 UDF to X12 map to limit the number of characters for RangeMin/RangeMax elements to take in the correct number of characters for decimal type elements [to include possible sign (-) digits and decimals], in accordance with the UDF.

4. *Problem:* During pre-production testing with PADDS, the 860 UDF to X12 map failed transactions that contained the date time qualifier "641" in Rec62, Field 02. According to the 3050Rev1 860 X12 standards, "641" is a valid date time qualifier for 2/DTM01/200.

Solution: Modified the date time qualifier restriction list for the 860 transaction set to include "641".

5. *Problem:* During pre-production testing with PADDS for 860 messages, ECPN indicated a segment fault when trying to display the resulting X12 file in the JDS Viewer. Further investigation revealed that the 860 contained an empty N4 segment.

Solution: Modified conditional logic within the N1 loop in the PADDS 860 UDF to X12 map that hard coded in an N4 segment.

6. *Problem:* During SAACONS X12 to UDF translation of an 843 message, a CAGE/DUNS number pairing that is different than the pairing in the trading partner database (TPDB) results in a failed translation, but no negative acknowledgement is sent back to the message originator.

Solution: An 824 message is now sent back to the vendor (message originator), describing the CAGE/DUNS mismatch.

7. *Problem:* During SAACONS X12 to UDF translation of an 843 message, any failure in finding or translating the associated vendor 838 message results in an 824 message that describes the problem being sent back to the vendor (message originator). When this 824 message is generated, a 997 acknowledgment message is not generated; however, a 997 acknowledgment is required by the message originator to validate message syntax.

Solution: A 997 translation acknowledgement message is now sent to the message originator for each SAACONS X12 to UDF translation.

8. *Enhancement:* To support internal testing and third-party map developers, a new map family, TESTAPI, has been developed. This translation type allows a developer to test the interface between a map and the ECPN Translator to learn about items such as database lookups, message information queries and file information queries.

3.3 Related Documents

This section lists documents pertinent to the Translation Maps Segment (in addition to this SVD).

- *Draft Security Manager's Guide for Electronic Commerce Processing Node, Version 2.2*, INRI, May 1999.
- *Draft Software User's Guide for Electronic Commerce Processing Node, Version 2.2*, INRI, May 1999.
- *Draft System Administrator's Guide for Electronic Commerce Processing Node, Version 2.2*, INRI, May 1999.

3.4 Installation Instructions

To install the Translation Maps Segment, Version 1.1:

1. Archive the existing translation look-up tables using the ArchRest Clipboard option, as described in Section 4.7 of the *Draft System Administrator's Guide for Electronic Commerce Processing Node, Version 2.2*.
2. De-install the current version of the Translation Maps Segment (if one is loaded), as instructed in Section 4.1, SEGMENT Installer, of the *Draft System Administrator's Guide for Electronic Commerce Processing Node, Version 2.2*.
3. Install the Translation Maps Segment, Version 1.1, as instructed in Section 4.1, SEGMENT Installer, of the *Draft System Administrator's Guide for Electronic Commerce Processing Node, Version 2.2*.

3.5 Possible Problems and Known Errors

1. *Problem:* During IPC/EFT translation, trading partner information is extracted from the trading partner database (TPDB) or the IPC/EFT look-up tables. When a translation fails to find an entry in the TPDB but finds one in the look-up table, the incorrect error **TPDB LOOKUP FAILURE: Couldn't find CAGE xxxxx in TPDB** is placed in the JDS, although the message is processed correctly.

Work-around: If an entry is found in the look-up table, the message **RESETERROR: error flag is reset** appears in the JDS after the **TPDB LOOKUP FAILURE** error. TPDB look-up failures followed by a **RESETERROR** message should be ignored.

2. *Problem:* It is possible for generated 997s to incorrectly report the field number of an error within a segment.

Work-around: No work-around is available. The field number of an error within a segment is calculated by counting the number of fields in a segment before the error that is reported in the translation audit log. The Mercator Transformation Engine does not report in the audit log when it finds an empty optional field within a segment.

3. *Problem:* Failed translations may result in a zero-length error and a general **Translation Failed** entry in the JDS.

Work-around: The **XLATE TOOLBOX**, available as a pop-up menu option from the **Message Log** and **Error Queue**, can be used to determine the reason that the translation failed. If a message contains structural errors (e.g., segments appearing out of order), the map will misinterpret the format of the message and will not be able to report a meaningful error message. The **XLATE TOOLBOX** can be used to diagnose which portion of the message contains errors; however, manual inspection is required to determine the exact problem.

4. *Problem:* The **SAACONS 997** and **824** acknowledgements currently report only whether a translation has passed or failed, without indicating the specific errors that caused it to fail.

Work-around: Manually translate the message using the **XLATE TOOLBOX** option, available on the pop-up menu for the **Message Log** window and the **Error Queue** window. The **XLATE TOOLBOX** option will generate a trace file that lists each step of the translator data validation. By viewing this file in conjunction with either the provided **X12 Implementation Convention** or the **UDF** specification of the appropriate transaction set, you can deduce the location and nature of the error.

4.0 Notes

The following acronyms and abbreviations appear in this document:

ACRN: Accounting Classification Reference Number

ADS: Automated Disbursing System

AFCOS: Automated Fund Control Orders System

AMEX: American Express

APADE: Automated Procurement and Accounting Data Entry

DAPS: Defense Automated Printing System

DBMS: Defense Business Management System

DID: Data Item Description

DIFMS: Defense Industrial Financial Management System

DISA: Defense Information Systems Agency

DTS: Defense Travel System

DTSCUI: Defense Travel System Common User Interface

DWAS: Defense Working Capital Accounting System

ECPN: Electronic Commerce Processing Node

EDA: Electronic Document Access

GAFS: General Accounting and Financing System

GUI: Graphical User Interface

IAPS: Integrated Accounts Payable System

IFAS: Industrial Fund Accounting System

INRI: Inter-National Research Institute

IPC: Integrated Paying and Collecting

ISO: International Standards Organization

ITIMP: Integrated Technical Item Management and Procurement

PADDs: Procurement Automated Data and Document System

SAACONS: Standard Army Accounting and Contracting System

SABRS: Standard Accounting, Budgeting, and Reporting System

SIFS: Standard Industrial Fund System

SOMARDS: Standard Operation and Maintenance Army Research and Development System

SPS: Standard Procurement System

SRD1: Standard Finance System (STANFINS) Redesign I

STANFINS: Standard Finance System

STARS: Standard Accounting and Reporting System

SVD: Software Version Description

TPDB: Trading Partner Database

UDF: User-Defined File